CURRENT LITERATURE.

Contributions to American Botany. By Sereno Watson. Proc. Amer. Acad. xxi. 414–468. Issued June 2, 1886.

This is Dr. Watson's thirteenth contribution and, as usual, is full of new species. The first part contains a list of plants collected by Dr. Palmer in Mexico, in 1885. The second part is devoted to the descriptions of new species, chiefly from the Pacific States and Northern Mexico. We specially note a new Canbya, from Oregon; Silene Hallii, a new Rocky Mountain species, distinguished from S. Scouleri, and about 20 new Leguminosæ.

The third part begins a series of notes upon a collection made by Dr. Watson himself, in Guatemala, in the spring of 1885. The fourth and last part contains some notes upon a few palms of Guatemala, most of the 25 species collected being still undetermined, A new species, Bactris Cohune, is described. It is a palm six to fifteen feet high, is abundant in the Chocon forests, and is called by the natives "Warree Cohune." Mr. Watson always adds to the convenience of his papers by appending a complete index.

Flora of the Yellowstone National Park. By Frank Tweedy. Washington, D. C. 1886. pp. 78.

This is an excellent catalogue of the vascular plants of one of our most interesting regions, and visited as it is by so many hundreds of tourists each year, this catalogue must be in considerable demand as a guide to the location of plants. The author has brought together all the plants reported, and from this small area, 55×65 miles, 657 species are listed. It is noticeable that while the Compositæ (108) and Gramineæ (72) are, as usual, the ranking families, the Cyperaceæ drop to the sixth place with but 26 species. Before them come Scrophulariaceæ (32), Leguminosæ (28), and Ranunculaceæ (27). The very interesting collection of grasses, made by Mr. Tweedy, is being described in this journal.

Contributions to American Botany. By Asa Gray. Proc. Amer. Acad., xxi. 363–413. Issued May 4, 1886.

This is the twenty-third number of these contributions, and by far its most important part is the revision of North American Ranunculi. This genus was hastily compiled nearly half a century ago for Torrey & Gray's Flora, with very little knowledge of original material, and has now come up again for study in preparation for Gray's Synoptical Flora. Naturally the work has been a difficult one, and we now have this genus really for the first time thoroughly presented to American botanists. Including Greenland, we have 59 species, grouped under six sections, the last of which (*Euranunculus* Gray) contains 49 species. The first section is the old *Batrachium* DC., with four species; the fourth is *Cyrtorhyncha* Gray, while the others are established for the first time. A section, *Oxygraphis*, is made of the Asiatic genus Oxygraphis, of Bunge, and introduced after Batrachium, but it is yet uncertain that it contains any American forms. *Pseudaphanostemma* and *Crymodes* are other sections, while *Halodes* is represented in our flora by the widely diffused R. Cymbalaria. Some three or four new species are included, and many new varieties. The polymorphous *R. occidentalis* Nutt., is made to include *R. Nelsonii* Gray, and five of its extreme forms are described as varieties. *R. hispidus* Michx., partly, DC., Hook, is disentangled from R. Pennsylvanicus, etc., and set up as a good species, with the somewhat composite authority quoted above.

The botany of Northern Mexico, cultivated by Mr. Pringle, continues to yield an astonishing harvest of rare and new species, many of which are described in this contribution, and among them are to be found a new genus of Compositæ (Piptothrix), near to Eupatorium, and a revision of the North American species of Metastelma.

Contributions to the history of certain species of Conifers. By Dr. Maxwell T. Masters. From Linnean Society's Journal, vol. xxii. pp. 169-212. plates II-X.

This is a collection of notes and plates, and is meant to furnish the basis of a fuller sketch of the family. Coming from such hands, however, it would be strange if it did not contain valuable material. The American species discussed are *Abies amabilis* Forbes, *A. grandis* Lindl. (with vars. Lowiana and pallida, the latter equaling *A. concolor* Engelm., partly), *A. concolor* Lindl., *A. subalpina* Engelm., and *A. nobilis* Lindl. (with new vars. glauca and magnifica, the latter equaling *A. magnifica* Murray). There has arisen much confusion concerning some of our species, and anything that can be said to bring us to a clearer understanding of them will be welcomed. It is refreshing to see the variety of characters used, and also the reliance that is being placed in the anatomical structure of the leaf. When gross and minute anatomy join forces in descriptive botany some good work will be the result.

A Manual of Structural Botany. By M. C. Cook, M. A., LL. D. W. H. Allen & Co., London. J. H. Vail & Co., New York. 1884. 16mo. pp. iv, 123.

Twenty-five years ago this little volume was prepared to meet the demand for a cheap manual. For one shilling it gave all the salient facts belonging to structural botany, not professing to round out the periods or popularize the dry details. It was to be considered more as a reminder than as an instructor. Now at this late date a new edition has been issued, said to be thoroughly revised. The growing need for cheap books in all departments of science should be recognized and we turned hopefully to this to represent botany. We are sorry to find that while it may have done very well a quarter of a century ago it is no nearer than that to the present status of botany. The last twenty-five years in botany means a good deal, and to say that a botany is published which takes no account of that interval, is to say that it is about worthless. The book before us deals in the most antiquated ideas and terms. Scores of words are used which have been long ago banished to the limbo of useless nomenclature. Besides this, mistakes are more numerous than they should be. On p. 18 is the description and figure of "raphides," the former of which applies to crystals in general, and the latter represents the compound crystals of Begonia. Parenchyma is said to be cellular tissue with cells hexagonal in cross-section. "When a spiral line is coiled up in the interior of cells, it is called *Fibro-cellular* tissue." It furthermore states that this spiral is sometimes broken up into bars and forms elongated dots. "Pleurenchyma" is said to be "glandular woody tissue," all of which seems to refer to the discigerous tissue of conifers. One of the cell contents is the "*primordial utricle* or *protoplasm.*" The pith of a stem is said to be composed of "cellular tissue" as opposed to the woody parts, while the "bark" is treated in the style of long ago. The pollen tubes are said to "penetrate the ovules and discharge into them the contents of the pollen grains, and thus a union is effected between the fovilla, or fertilizing principle of the pollen, and the semi-fluid contents of the ovule." But enough of such illustrations. In many parts the definition of the fixed anatomical terms would serve the purpose of a glossary. The real truth is, the book is untimely. If one understands botany, this book is not needed; if he wants to learn it, this is very far from being the book he wants.

NOTES AND NEWS.

LACTUCA SCARIOLA has been found this season by Mr. Rose, in Union county, Indiana.

THE GLUTINOUS RICE of Siam (Oryza glutinosa) has starch which gives a red or red-brown coloration with iodine, instead of blue. It does not appear to differ otherwise from ordinary starch.